ROBERT GLASER LOEB, M.D.   Updated 10/01/2013
CURRICULUM VITAE

ADDRESS

Department of Anesthesiology
University of Arizona College of Medicine
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EDUCATION

M.D.   University of Maryland, Baltimore, MD
B.S.   University of Maryland, College Park, MD
        Hofstra University, Hempstead, NY

POSTGRADUATE TRAINING

Fellowship, Department of Anesthesiology,
    University of Utah, Salt Lake City
Residency, Department of Anesthesiology,
    University of Virginia, Charlottesville
Internship, Department of Family Practice,
    University of Maryland, Baltimore

ACADEMIC APPOINTMENTS

1996-Present	Associate Professor of Anesthesiology, University of Arizona
1994-1996	Associate Professor of Anesthesiology, University of California, Davis
1987-1994	Assistant Professor of Anesthesiology, University of California, Davis
1986-1987	Limited Instructor in Anesthesiology, University of Utah,

BOARD CERTIFICATION

1988	Diplomate, American Board of Anesthesiology
1984	Diplomate, National Board of Medical Examiners

LICENSURE

Arizona

PROFESSIONAL SOCIETIES

American Society of Anesthesiologists
Arizona Society of Anesthesiologists
Association of University Anesthesiologists
International Anesthesia Research Society
Society for Technology in Anesthesia

AWARDS

Elected, Association of University Anesthesiologists 2001

Selected as one of the *Best Doctors in America*® since 2003
Vernon & Virginia Furrow Award for *Excellence in Innovation in Teaching 2005*
Department Award, *Outstanding Teacher of the Year 2005*
Selected for inclusion in *Marquis Who's Who in Medicine and Healthcare 2005*
Voted *Anesthesiologist of the Year* 2006 by the Southern Arizona Chapter of the Association of
Operating Room Nurses (AORN)

CURRENT APPOINTMENTS AND COMMITTEES

Extramural
U.S. Food and Drug Administration (FDA)
    2007-present   Consultant, Anesthesiology and Respiratory Therapy Devices Panel
National Fire Protection Agency (NFPA)
    2011-present   Alternate, Technical Committee on Electrical Systems
    2011-present   Alternate, Technical Committee on Piping Systems
Society for Technology in Anesthesia
    2004   Immediate Past-president
    2003   President
    2002   President-elect
    1999-2009   Webmaster (www.anestech.org)
    1999-2001   Treasurer
American Society of Anesthesiologists
    2008-present   Committee on Equipment and Facilities
    2008-2009   Committee on Electronic Media and Information Technology
    2000-present   Subcommittee on Equipment Monitoring and Engineering Technology
    1997-1999   Scientific Content Subcommittee on Ambulatory Anesthesia
Anesthesia & Analgesia (medical journal)
    2002-2005   Subsection editor
    2000-present   Reviewer
Anesthesiology (medical journal)
    1997-2002   Reviewer
Journal of Clinical Monitoring and Computing (medical journal)
    1997-1999   Reviewer

Scientific Meeting Planning
2011   Panel Organizer, "Computers in Anesthesia (CIA) Show & Tell Contest", Society for Technology in Anesthesia Annual Meeting
2011   Workshop Organizer, "So, You Want to Install an Anesthesia Information Management System", American Society of Anesthesiologists Annual Meeting
2010   Panel Organizer, "Computers in Anesthesia (CIA) Show & Tell Contest", Society for Technology in Anesthesia Annual Meeting
2010   Panel Organizer, "AIMS Outside of the OR", American Society of Anesthesiologists Annual Meeting
2010   Workshop Organizer, "So, You Want to Install an Anesthesia Information Management System", American Society of Anesthesiologists Annual Meeting
2010   Panel Organizer, "Radiation, Fire and Electricity: Update on OR Hazards", American Society of Anesthesiologists Annual Meeting
2009   Panel Organizer, "Show and Tell Innovative Equipment and Software", Society for Technology in Anesthesia Annual Meeting

2009   Panel Organizer, "Creating an Infrastructure to Extract Information From My AIMS", American Society of Anesthesiologists Annual Meeting

2009   Workshop Organizer, "So, You Want to Install an Anesthesia Information Management System", American Society of Anesthesiologists Annual Meeting

2006   Panel Organizer, "Technology Update", Society for Technology in Anesthesia Annual Meeting

2006   Panel Organizer, "Only You Can Prevent… OR Fires", American Society of Anesthesiologists Annual Meeting

2005   Panel Organizer, "PDAs for Point-of-Care Information in the Operating Room", American Society of Anesthesiologists Annual Meeting

1998   Social Program Director, Society for Technology in Anesthesia Annual Meeting

Medical School, UMC, and UPI

2012	Medical Information Technology Committee
2012	Epic Anesthesia Champion
2006-2008	UMC Perioperative Information Management Steering Committee
2006-2008	CoChair, Medical School Simulation Committee
2005-2006	UMC Perioperative Process Restructuring Committee (Preop & IT)
2003-2004	Chair, UMC Credentials Committee
2001-2002	CoChair, UMC Credentials Committee
1999-2007	UPI Surgery Center Management Committee
1999-2001	Medical School Student Progress Committee
1999-2001	Medical School Neuroscience Committee
1998-2001	Medical School Library Advisory Committee
1998-1999	UMC OR Performance Team - Room Availability
1998-1999	UMC OR Performance Team - Patient Preparation
1997-present	UMC Credentials Committee
1997-2002	UPI Credentials Committee
1997-2000	UMC/UPI Laser Safety Committee

Department

Director, Patient Simulator Laboratory
Director, Preoperative Testing Clinic
Executive Committee
Promotion and Tenure Committee
Faculty Recruitment Committee
Education Committee
Research Committee

COMMUNITY SERVICE

2010-2011   Sponsored University of Arizona engineering team #4822 their senior engineering project entitled, "Development of Wireless Link Between Patient and Monitor in Anesthesia Room" and presented at Engineering Design Day May 3, 2011.

Fall, 2006   Mentored two high school students, (b) (6)   and (b) (6)   , from Tucson High Magnet School, for a science fair project, "Detection of the Physiological Stress in Patients During Surgery As Measured by Palmar Skin Conductance", for which they won 3rd Place and an Army Honorable Mention at the 2006 Southern Arizona Regional Science and Engineering Fair (SARSEF).

PUBLICATIONS

Peer-Reviewed Articles
1. Bateman BT, Mhyre JM, Ehrenfeld J, Kheterpal S, Abbey KR, Argalious M, Berman MF, St. Jacques P, Levy W, **Loeb RG**, Paganelli W, Smith KW, Wethington KL, Wax D, Pace NL, Tremper K, Sandberg WS. The Risk and Outcomes of Epidural Hematomas and Abscesses Following Perioperative and Obstetric Epidural Catheterization: A Report from the MPOG Research Consortium. *Anesth Analg*. Apr 13, 2012 [Epub ahead of print].
2. Ursea R, Feng MT, Zhou M, Lien V, **Loeb R**. Pain perception in sequential cataract surgery: comparison of first and second procedures. *J Cataract Refract Surg* 37:1009-14, 2011.
3. Badal JJ, Chen KJ, **Loeb RG**. Measurement of dead space in subjects under general anesthesia using standard anesthesia equipment. *Anesth Analg* 112:375-7, 2011.
4. Dosch MP, **Loeb RG**, Brainerd TL, Stallwood JF, Lechner S. Time to a 90% Change in Gas Concentration: A Comparison of Three Semi-Closed Anesthesia Breathing Systems. *Anesth Analg* 108:1193-1197, 2009.
5. Effken JA, **Loeb RG**, Kang Y, Lin Z-C. Clinical Information Displays to Improve ICU Outcomes. *Int J Med Inform* 77:765-777, 2008.
6. McRee L, Pasvogel A, Hallum AV, Behr SE, Garcia FAR, **Loeb RG**. Effects of preoperative massage on intra- and postoperative outcomes. *Journal of Gynecologic Surgery* 22:97-103, 2007.
7. Albert RW, Agutter J, Syroid N, Johnson K, **Loeb RG**, Westenskow D. Graphic cardiovascular display improves patient care in simulated surgeries. *Anesth Analg* 105:1303-1311, 2007.
8. Badal J, **Loeb RG**, Trujillo DX. A simple method to determine mixed exhaled CO_2 using a standard circle breathing circuit. *Anesthesia & Analgesia* 105:1048-1052, 2007.
9. **Loeb R,** Fitch T. Laboratory evaluation of an auditory display designed to enhance intraoperative monitoring. *Anesthesia and Analgesia* 94:362-8, 2002
10. Syroid, ND, Agutter J, Drews FA, Westenskow DR, Albert RW, Bermudez JC, Strayer DL, Prenzel H, **Loeb RG**, Weinger MB. Development and evaluation of a graphical anesthesia drug display. *Anesthesiology* 96:565-74, 2002
11. Sowb YA, **Loeb RG**. Cognitive analysis of intraoperative critical events: A problem-driven approach to aiding clinicians' performance. *Cognition, Technology, & Work* 4:107-119, 2002
12. Zhang Y, Drews FA, Westenskow DR, Foresti S, Agutter J, Bermudez JC, Blike G, **Loeb R**. Effects of integrated graphical displays on situation awareness in anaesthesiology. *Cognition, Technology, & Work* 4: 82-90, 2002
13. Effken J, **Loeb R**, Johnson K, Johnson S, Reyna V. Using cognitive work analysis to design clinical displays. *Studies in Health Technology and Informatics* 84:127-31, 2001
14. Smith WD, Berguer R, **Loeb RG**. Virtual instrumentation for human factors studies in surgery and anesthesia. *Laboratory Robotics and Automation* 10:99-105, 1998.
15. Berguer R, **Loeb RG**, Smith WD. Use of the virtual instrumentation laboratory for the assessment of human factors in surgery and anesthesia. *Studies in Health Technology and Informatics* 39:187-94, 1997
16. **Loeb RG.** Manual record keeping is not necessary for anesthesia vigilance. *Journal of Clinical Monitoring* 11:9-13, 1995.
17. Valdrighi JB, Hanowell LH, **Loeb RG,** Behrman KH, Disbrow EA. Effect of intraoperative ketorolac on postanesthesia care unit comfort. *Journal of Pain and Symptom Management* 9:171-174, 1994.
18. **Loeb RG.** Monitor surveillance and vigilance of anesthesia residents. *Anesthesiology* 80:527-533, 1994.

19. **Loeb RG.** A measure of intraoperative attention to monitor displays. *Anesthesia and Analgesia* 76:337-341, 1993.
20. **Loeb RG.** The output of four modern vaporizers in the presence of helium. *Canadian Journal of Anaesthesia* 39:888-891, 1992.
21. **Loeb RG,** Jones BR, Leonard RA, Behrman K. Recognition accuracy of current operating room alarms. *Anesthesia and Analgesia* 75:499-505, 1992.
22. Follett DV, **Loeb RG**, Haskins SC, Patz JD. Effects of epinephrine and ritodrine in dogs with acute hyperkalemia. *Anesthesia and Analgesia* 70:400-406, 1990.
23. **Loeb RG**, Brunner JX, Westenskow DR, Feldman BS, Pace NL. The Utah anesthesia workstation. *Anesthesiology* 70:999-1007, 1989.
24. Lawson D, Norley I, Korban G, **Loeb R**, Ellis J. Blood flow limits and pulse oximeter signal detection. *Anesthesiology* 67:599-60, 1987.
25. Ramwell PW, Foegh M, **Loeb R**, Leovey EM. Synthesis and metabolism of prostaglandins, prostacyclin, and thromboxanes: The arachidonic acid cascade. *Seminars in Perinatology* 4(1):3-13, 1980.

Manuscripts in Progress

1. (b)(4) ███
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Book Chapters

1. Sheinbein DS, **Loeb RG.** Laser surgery and fire hazards in ear, nose, and throat surgeries. In Atkins JH, Mandel JE (Eds.), Anesthesiology Clinics: Current Topics in Anesthesia for Head and Neck Surgery, Vol 28, Issue 3, 2010
2. **Loeb RG,** Feldman J. Anesthesia Machines. In: Webster JG, (Ed.), Encyclopedia of Medical Devices and Instrumentation. 2nd ed., Wiley, Hoboken, NJ, 2006.
3. **Loeb RG**. Anesthesia safety: Can we make more progress? In: Lake CL, Johnson JO, McLoughlin TM, (Eds.), Advances in Anesthesia, Vol 20, Mosby, Philadelphia, 2002.
4. (b)(4) ███
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5. **Loeb RG**. Increased peak airway pressure. In: Bready LL, Mullins RM, Noorily SH, Smith RB, (Eds.), Decision Making in Anesthesiology, 3rd ed., Mosby, St. Louis, 2000.
6. **Loeb RG.** Decreased inspired oxygen concentration. In: Bready LL, Mullins RM, Noorily SH, Smith RB, (Eds), Decision Making in Anesthesiology. 3rd ed., Mosby, St. Louis, 2000.S,
7. **Loeb RG**, McCoy J. Principles of Pressure Monitoring In: Lake CL, Hines R, Blitt CD (Eds.), Clinical Monitoring: Practical Applications, WB Saunders, Philadelphia, pp. 65-79, 2000.
8. **Loeb RG**. Flowmeters. In: Atlee J, (Ed.), Complications in Anesthesiology, W. B. Saunders, Philadelphia, pp. 531-534, 1999.
9. **Loeb RG**. Anesthesia ventilators. In: Sosis MB, (Ed.), Anesthesia Equipment Manual, Lippincott-Raven, Philadelphia. pp. 91-107, 1997.
10. **Loeb RG,** Santos W. Monitoring ventilation. In Hanowell LH, Waldron RJ, Hwang JCF (Eds.), Airway Management, Lippincott-Raven, Philadelphia, pp. 15-37, 1996.
11. **Loeb RG.** Intravascular pressure monitoring systems. In: Lake CL, (Ed.), Clinical Monitoring, 2nd ed., WB Saunders, Philadelphia, pp. 85-100, 1994.
12. **Loeb RG,** Weinger MB, Englund CE. Ergonomics of the anesthesia workspace. In: Ehrenwerth J, Eisenkraft JB, (Eds.), Anesthesia Equipment. Mosby-Year Book, St. Louis, pp 385-404, 1993.
13. **Loeb RG.** Increased peak airway pressure. In: Bready LL, Smith RB, (Eds.), Decision Making in Anesthesiology, 2nd ed., Mosby, St. Louis, pp 32-33, 1992.

14. **Loeb RG.** Decreased inspired oxygen concentration. In: Bready LL, Smith RB, (Eds), <u>Decision Making in Anesthesiology.</u> 2nd ed., Mosby, St. Louis, pp 30-31, 1992.
15. **Loeb RG**. Intravascular pressure monitoring systems. In: Lake C, (Ed.), <u>Clinical Monitoring</u>, WB Saunders, Philadelphia, pp 85-113, 1988.

Case Reports and Non-Peer Reviewed Articles
1. Singh S, **Loeb RG**. Fatal connection: Death caused by direct connection of oxygen tubing into a tracheal tube connector. Anesthesia and Analgesia 99:1164-1165, 2004.
2. Effken J, Johnson K, **Loeb R**, Johnson S, Reyna V. Evaluating ecologically designed clinical information displays for trauma management. Medical Records Institute Health IT Advisory Report 3(8), 2-7, 2002.
3. Hamza M, **Loeb RG**. Minitutorial: Fire in the operating room. J Clin Monit 16:317-320, 2000.
4. Walters LC, **Loeb RG**. ACLS Simulator and ACLS Teaching Series (Book Review). Anesthesiology 90:347-348, 1999.
5. **Loeb RG**. Highlight editorial to accompany: The effect of electronic record-keeping and transesophageal echocardiography on task distribution, workload, and vigilance during cardiac anesthesia. *Anesthesiology* 87:29A-30A, 1997.
6. **Loeb RG.** Book review - American Journal of Ophthalmology 113(6):732, 1992.
7. **Loeb R,** Hanowell L. Benefits and technique of total intravenous infusion anesthesia. *Wellcome Trends in Anesthesiology* 9:3-11, 1991.
8. **Loeb R.** Preventing anesthesia-machine induced hypoxemia. *Wellcome Trends in Anesthesiology* 8(1):3-10, 1990.
9. Scheller J, **Loeb R**. Respiratory artifact during pulse oximetry in critically ill patients. Anesthesiology 69:165-166, 1988.

Letters
1. **Loeb RG**. Supplying sub-100% oxygen gas mixtures during monitored anesthesia care: Respiratory monitoring and use of a Venturi device (Letter). *Anesthesia and Analgesia* 102:1048, 2006.
2. **Loeb R**, Santos B. Pumping effect in Ohmeda Tec 5 vaporizers (Letter). *Journal of Clinical Monitoring* 11:348, 1995.
3. **Loeb RG.** Anesthesia systems (Letter). *Journal of Clinical Monitoring* 10:68-69, 1994.

Abstracts
1. Garol BD, Pate B, Badal JJ, **Loeb RG**. Fabius Anesthesia Machines Respond Differently to Unidirectional Valve Failures. *Anesthesiology* 117:A1157, 2012
2. **Loeb RG**, Frey R. Pre-use checkout procedure to detect desiccated CO_2 absorbent. *Anesthesiology* 103:A806, 2005
3. Albert R, AgutterJ, Syroid N, **Loeb R**, Westenskow D. Validating the utility of a cardiovascular visualization in simulated surgeries. Society for Technology in Anesthesia Annual Meeting 2004
4. **Loeb RG**, Rowe S, Morgan S. Anesthesia Breathing Circuit Efficiency. *Society for Technology in Anesthesia Annual Meeting* 2004
5. Lichtenthal PR, **Loeb RG**, Morgan SE. 8500 Poet® IQ -An Accurate Anesthesia Gas Monitor? Society for Technology in Anesthesia Annual Meeting 2004
6. Tebich S, **Loeb R**, Kim A, Ellis S, Vanderah T. Active learning intervention evaluated with a cognitive behavior survey, performance assessment, multiple choice and short answer questions. Anesthesiology 99:A1338, 2003
7. **Loeb R**, Lichtenthal P, Zane D. Use of a human patient simulator to evaluate and solve a clinical equipment problem. *Anesthesiology* 99:A533, 2003
   STA Award for Best Abstract - Application of Simulator Technology

8. Tebich S, **Loeb R**. Using patient simulators to train CA-1 residents' rule-based decision making. Anesthesia and Analgesia 97; S19, 2003

9. Gotschalk AL, Eisner AM, **Loeb RG**. Narkomed GS versus Fabius GS: New circuit design is less efficient. Anesthesia and Analgesia 97; S5, 2003

10. Tebich S, **Loeb R**, Redford D. Acrotherm™ warming system maintains patient's temperature for up to ninety-minute cases. Anesthesiology 97:A507, 2002

11. Effken JA, Johnson K, **Loeb R**, Johnson S, Reyna V. Evaluating ecologically designed clinical information displays for trauma management. Health IT Advisory Report. 2002

12. Seagull FJ, Wickens CD, **Loeb RG**. When is less more? Attention and workload in auditory, visual, and redundant patient-monitoring conditions. Proceedings of the HFES 2001

13. Albert RW, Drews FA, Syroid ND, Strayer DL, Agutter J, Westenskow DR, **Loeb RG**, Weinger MB. Facilitation of anesthetic administration during simulated surgeries with a drug display. Proceedings of the HFES 2001

14. **Loeb RG**, Haryadi DG, Gomez C. Accuracy of partial rebreathing cardiac output during mixed-breathing. *Anesthesiology* 93:A428, 2000

15. **Loeb RG,** Fitch WT. Laboratory evaluation of an auditory display designed to enhance intra-operative monitoring. *Anesthesiology* 93:A580, 2000.
    STA Award for Best Abstract - Excellence in Technology Innovation

16. **Loeb RG**, Fitch WT. Laboratory evaluation of an auditory display designed to enhance intra-operative monitoring. *Journal of Clinical Monitoring and Computing*, 16:63-64, 2000.

17. Zhang Y, Westenskow DA, Blike G, **Loeb R**, Marsolek R. Graphic anesthesia display enhances situation awareness during hypovolemia. Anesthesiology 91:A476, 1999.

18. **Loeb RG**, Brown EA, DiNardo JA, Orr JA, Watt RC. Clinical accuracy of a new non-invasive cardiac output monitor. *Anesthesiology* 91:A474, 1999.

19. **Loeb RG**, Watt RC, DiNardo JA, Orr J. Comparison of non-invasive, partial rebreathing cardiac output with invasive bolus and continuous thermodilution. *Journal of Clinical Monitoring and Computing* 15:259-260, 1999.

20. Sowb YA, **Loeb RG**, Smith BE. Clinicians' Response to Management of the Gas Delivery System. Journal of Clinical Monitoring and Computing 15:246-247, 1999.

21. Sowb YA, **Loeb RG**, Roth EM. Cognitive Modeling of Intraoperative Critical Events. Proceedings of the 1998 IEEE Systems, Man, and Cybernetics, pp. 2533-2538, 1998.

22. Watt RC, **Loeb RG**, Orr J. Comparison of a new non-invasive cardiac output technique with invasive bolus and continuous thermodilution. Anesthesiology 89:A536, 1998.

23. Sowb YA, **Loeb RG**, Moore PG. Competence analysis of intraoperative critical events. Anesthesia and Analgesia 86:S189, 1998.

24. Sowb YA, **Loeb RG**. Identification of cognitive demands with a competence model. Anesthesia and Analgesia 86:S188, 1998.

25. Smith E, **Loeb RG**, Gaba DM, Weinger M. Simulation in human factors research: A progress report. Journal of Clinical Monitoring and Computing 14:533-534, 1998.

26. Sowb YA, **Loeb RG**, Smith BE. Cognitive performance during simulated ventilation-related events. Journal of Clinical Monitoring and Computing 14:535-536, 1998.

27. Sowb YA, **Loeb RG**, Moore PG. Competence analysis of intraoperative critical events. Journal of Clinical Monitoring and Computing 14:535, 1998.

28. Sowb YA, **Loeb RG**, Smith BE. Cognitive performance during simulated ventilation-related events. Anesthesiology 87:A943, 1997.

29. Berguer R, **Loeb RG**, Smith WD. Use of the virtual instrumentation laboratory for the assessment of human factors in surgery and anesthesia. Presented at Medicine Meets Virtual Reality

30. **Loeb RG,** Sowb YA, Smith BE. Has an important clinical monitor been neglected? *Journal of Clinical Monitoring* 13:413-414, 1977
31. **Loeb RG.** Comparison of two methods to assess intraoperative vigilance. *Journal of Clinical Monitoring* 11:269, 1995.
32. **Loeb R,** Wetchler BV, Schacher D, Gross J. Comparison of sevoflurane and isoflurane for anesthesia on adult outpatients. *Anesthesiology* 81:A3, 1994.
33. Khan A, **Loeb RG**. Anesthesiologists' responses to audible alarms. Anesthesia and Analgesia 76:S185, 1993.
34. **Loeb RG.** Intraoperative vigilance toward a physiologic monitor. *Anesthesia and Analgesia* 74:S190, 1992.
35. **Loeb RG**, Jones BR, Behrman KH, Leonard RJ. Anesthetists cannot identify audible alarms. *Anesthesiology* 73:A539, 1990.
36. **Loeb RG**, Soriano SG. Helium decreases the flammability of endotracheal tubes. *Anesthesia and Analgesia* 70:S246, 1990.
37. **Loeb RG**, Robinson DM. Helium does not affect the output of calibrated vaporizers. *Anesthesiology* 71:A362, 1989.
38. Follett DV, **Loeb RG**, Haskins SC. A comparison of epinephrine and ritodrine to treat severe hyperkalemia. Anesthesiology 69:A423, 1988.
39. Westenskow DR, **Loeb RG**, Brunner JX, Pace NL. Expert alarms and autopilot in an anesthesia workstation. Anesthesiology 69:A731, 1988.
40. **Loeb R**, Westenskow D, Brunner J, Feldman B, Pace N. The Utah anesthesia workstation. *Journal of Clinical Monitoring* 4:148-149, 1988.
41. **Loeb R**, Ross W, Lawson D. How modern anesthesia machines respond to decreases in oxygen line pressure. *Anesthesia and Analgesia* 66:S106, 1987.

Invited Presentations
1. **Loeb RG,** "Transitioning Systems". Presented as part of the panel "So, You Want to Install and AIMS system" at the American Society of Anesthesiologists Annual Meeting, October 13, 2013.
2. **Loeb RG,** "Alarm Technology - Pitfalls and Promises". Presented as part of the panel "From Detection to Decision: The Art, Science and Future of Non-invasive Monitoring" at the American Society of Anesthesiologists Annual Meeting, October 19, 2011.
3. **Loeb RG,** "Drager Fabius Anesthesia Workstation". Presented as part of the "Anesthesia Machine Workshop" at the American Society of Anesthesiologists Annual Meeting, October 17, 2011.
4. **Loeb RG,** "Electrical Safety Update". Presented as part of the panel "Radiation, Fire and Electricity: Update on OR Hazards" at the American Society of Anesthesiologists Annual Meeting, October 19, 2010.
5. **Loeb RG,** "Drager Fabius Anesthesia Workstation". Presented as part of the "Anesthesia Machine Workshop" at the American Society of Anesthesiologists Annual Meeting, October 18, 2010.
6. **Loeb RG,** "AIMS Outside of the OR at UMC". Presented as part of the panel "AIMS Outside of the OR" at the American Society of Anesthesiologists Annual Meeting, October 17, 2010.
7. **Loeb RG,** "Drager Apollo Anesthesia Workstation". Presented as part of the workshops "Fundamentals - Apollo Machines" and "Ask the Expert - Apollo Machines", at the American Society of Anesthesiologists Annual Meeting, October 20, 2009.
8. **Loeb RG,** "Peri-installation Issues. The Painful First Year". Presented as part of the panel "Real World Information Systems from Infancy to Mortality" at the Society for Technology in Anesthesia Annual Meeting, January 17, 2009.
9. **Loeb RG,** "Drager Fabius Anesthesia Workstation". Presented as part of the workshop "Anesthesia Machines of 2007 – How to Get Them to Work for You" at the American Society of Anesthesiologists Annual Meeting, October 14, 2007.

10. **Loeb RG,** "Pitfalls of New Anesthesia Systems". Presented as part of the panel "Hazards of the Modern Anesthesia Workstation - Prevention, Diagnosis and Treatment" at the American Society of Anesthesiologists Annual Meeting, October 16, 2006.
11. **Loeb RG,** "What's Really New In Anesthesia Systems?". Presented as part of the panel "Latest in Gadgets for the OR" at the American Society of Anesthesiologists Annual Meeting, October 15, 2006.
12. **Loeb RG,** "Incidence and Prevalence of OR Fires". Presented as part of the panel "Only You Can Prevent… OR Fires" at the American Society of Anesthesiologists Annual Meeting, October 15, 2006.
13. **Loeb RG,** "Anesthetic Interactions with Carbon Dioxide Absorbents". Presented as part of the panel "Technology Update" at the Society for Technology in Anesthesia Annual Meeting, January 21, 2006.
14. **Loeb RG,** "Beyond the Numbers: Picturing Physiology". Presented as part of the panel "What Numbers are Needed for Clinical Care" at the Society for Technology in Anesthesia Annual Meeting, January 20, 2006.
15. **Loeb RG,** "NonInvasive Cardiac Output". Presented as part of the panel "What's New in Monitoring" at the American Society of Anesthesiologists Annual Meeting, October 17, 2001.
16. **Loeb RG,** "Using Style Sheets to Maintain a Consistent Look". Presented as part of the panel "Developing and Managing a Website" at the Computers in Anesthesia XXI meeting, October 19, 2000.
17. **Loeb RG,** "Auditory Displays: Is Hearing Believing?". Presented as part of the panel "Clinical Displays for the New Millennium - What Will You be looking At and Listening To?" at the American Society of Anesthesiologists Annual Meeting, October 17, 2000.
18. **Loeb RG,** Fitch WT. "A Demonstration of Sonic Displays of Physiologic Signals". Scientific exhibit at the American Society of Anesthesiologists Annual Meeting, October 10-12, 1999. Exceptional Merit Award.
19. Berguer R, chair; **Loeb RG**, co-chair. "Human Factors in the Operating Room: Improving the Efficiency, Cost-Effectiveness, and Safety of Surgical Procedures". Colloquium at the Human Factors and Ergonomics Society Annual Meeting, September 30, 1999.
20. **Loeb RG.** "Introduction to Anesthesiology". Abbott Laboratories Training Conference, San Francisco, CA, February 18, 1999.
21. **Loeb RG.** "Medical Training Using Full-Scale Patient Simulators". University of Arizona Biomedical Engineering Seminiar, Tucson, AZ, January 4, 1999.
22. **Loeb RG.** "Anesthesia Ventilators: Anatomy, Physiology, and Clinical Application". Arizona Society of Anesthesiologists, Phoenix, AZ, February 15, 1998.
23. **Loeb RG.** "Ergonomics of the Anesthesia Workspace". Arizona Society of Anesthesiologists, Phoenix, AZ, February 13, 1998.
24. **Loeb RG,** Botney R, Watt R, Sowb Y. "Differential Diagnosis of High Airway Pressure". A Simulator Workshop, STA Annual Meeting, Tucson, AZ, January 16, 1998.
25. **Loeb RG.** "Preoperative Laboratory Evaluation of the Healthy Patient". UCDMC Dept. Anesthesiology Seminar, Monterey, CA, November 3, 1995.
26. **Loeb RG.** "Transport Ventilators". An Airway Workshop station, Anesthesiology Update, UCDMC Dept. Anesthesiology Seminar, Monterey, CA, November 12, 1994.
27. **Loeb RG.** "Vigilance Research". UCDMC Dept. Anesthesiology Research Conference, October 27, 1994.
28. **Loeb RG.** "Medicine on the Information Superhighway". UCDMC Dept. Anesthesiology Grand Rounds, May 19, 1994.

29. **Loeb RG.** "Teaching Safety and the Safe Use of Technology". Workgroup Leader and Presentation, Annual Meeting of the Society for Technology in Anesthesia, Orlando, Florida, January 29, 1994.
30. **Loeb RG.** "Ergonomics of the Anesthesia Workspace". Anesthesiology Update, UCDMC Dept. Anesthesiology Seminar, Monterey, CA, November 14, 1993.
31. **Loeb RG.** "Anesthesia Ventilators" The Annual Conference of the California Association of Anesthesia Technologists & Technicians, Monterey, CA, May 21, 1993.
32. **Loeb, RG.** "Ergonomics of the Anesthesia Workspace". Annual Meeting of the Society for Technology in Anesthesia, New Orleans, Louisiana, February 17, 1993.
33. **Loeb RG.** "Alarms and Vigilance in Anesthesia". Anesthesiology Grand Rounds, University of Utah, Salt Lake City, Utah, January 27, 1993.
34. **Loeb RG.** "Anesthesia for Cataract Surgery". Preventing and Managing Complications in Cataract Surgery, Department of Ophthalmology, UCDMC, September 21, 1992.
35. **Loeb RG.** "Ventilation of the Trauma Patient". Anesthesiology Update, UCDMC Dept. Anesthesiology Seminar, Monterey, CA, November 10, 1991.
36. **Loeb RG.** "Transport Ventilators". Fourth Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD, May 4, 1991.
37. **Loeb RG.** "Ventilators: Stationary and Portable". Third Annual Trauma Anesthesia and Critical Care Symposium, Baltimore, MD, June 16, 1990.
38. **Loeb RG**. "Anesthesia for Endoscopic Laser Surgery". Anesthesiology Update, UCDMC Dept. Anesthesiology Seminar, Monterey, CA, November 18, 1989.
39. **Loeb RG**. "The Anesthesiologist - Machine Interface". Biomedical Engineering Seminar, California State University, Sacramento, CA, November 10, 1989.
40. **Loeb RG**. "Emergency Laparotomy for Massive Blunt Trauma". California Society of Anesthesiologists, Case Conference in Anesthesia, September 10, 1989.
41. **Loeb RG**. "An Aspirated Peanut". California Society of Anesthesiologists, Case Conference in Anesthesia, September 9, 1989.
42. **Loeb RG**. "Anesthetic considerations in laser surgery". Roseville Community Hospital, February 23, 1989.
43. **Loeb RG**, Follett DV and Haskins SC. "Insulin/dextrose therapy of hyperkalemia: A comparison of two doses". American College of Veterinary Anesthesiologists Annual Meeting, October 1988.
44. **Loeb RG**. "Airway Management in an Adult". American River Hospital, June 14, 1988.
45. **Loeb R**, Westenskow D, Brunner J, Feldman B, and Pace N. "The Utah computer controlled and monitored anesthesia machine". Scientific exhibit at the American Society of Anesthesiologists Annual Meeting, October 1987. Exceptional Merit Award.

GRADUATE STUDENT TEACHING

2009-2011	DNP Thesis Committee, (b) (6) ████████, University of Arizona College of Nursing
2011	Ph.D. Thesis Committee (extramural member), (b) (6) ██████, University of Utah Department of Bioengineering
2010	Ph.D. Thesis Committee (external assessor), (b) (6) █████ University of Queensland School of Information Technology and Electrical Engineering
2005-2006	Ph.D. Thesis Committee, (b) (6) ██████, University of Arizona College of Nursing
1998-1999	Ph.D. Thesis Committee (extramural member), (b) (6) ███████, University of Utah Department of Bioengineering
1994-1998	Chair, Ph.D. Thesis Committee, (b) (6) █████, University of California, Davis, Department of Bioengineering